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Human Relationships to Information Technology

"It's the personal touch."

"So and so knows them; you can trust them."

Personal and community relationships, personal and community safety—these are high values for all of us. The human relationship indicators presented here attempt to capture some of the quality of life and safety concerns that have risen to the top of the debate and development of our information technology age.

Participants in the development of these indicators felt a strong need to be able to capture and reflect on the current psyche of our city in concert with the other quantitative measures. Behind this lies a goal of ensuring that information technology is used to benefit and not harm our personal lives, our families, our relationships with each other and the society we live in.

Technology is a powerful magnet and in its allure we may lose track of how we're adjusting to the changes or whether we're heading in the right direction. We must simultaneously recognize both the benefits and problems associated with use of information and communication technologies. There are certainly a range of perspectives and ambivalence in our relationship with IT.

The measures in this section cover impact on personal time, privacy, security and quality of life. Also included in this section is a discussion of the content of the Internet and how well that content meets the needs of residents. If the Internet is to be truly a place of equality then the authors and content should be inclusive of our diverse community.

We have attempted to gather a selection of measures here that together reflect overall trends in our relationship with technology. This was a challenging set of indicators to develop. We hope their publication sparks further dialogue and critical thinking about how we put residents in the driver's seat and ensure that information technology is used to benefit and not harm our personal lives, our families and our relationships.

Quality of Life

The City strives to improve and sustain a high quality of life for Seattle residents and for the City as a whole. The two measures here consider residents' view of information technology's impact on their own personal lives and the overall quality of life for the city.

Measurements: Quality of Life

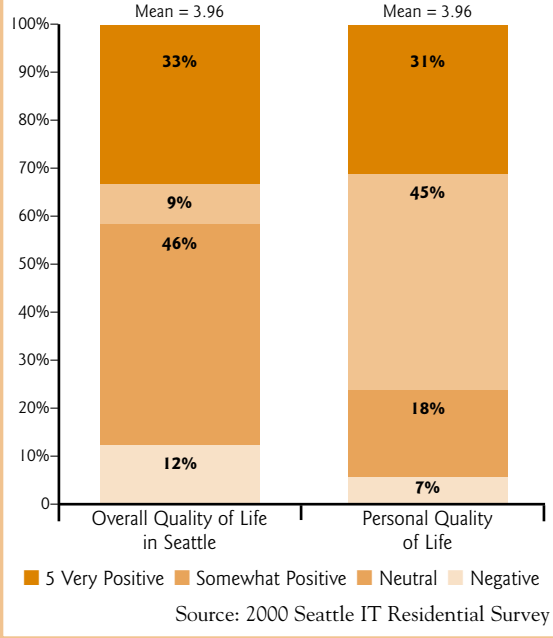
Percent of residents who feel IT has had a positive impact on their personal quality of life **76%**

Percent of residents who feel that IT has had a positive impact on the quality of life in Seattle **79%**

Overall, Seattle residents feel good about the impact that information technology has had on their lives and on the city.

About three-quarters of residents feel that information technology has had a positive impact on their quality of life. This includes computer users and non-computer users.

About four out of five residents feel that information technology has had a positive impact on the quality of life in Seattle.[1]



Privacy, Security, and Safety Concerns

The power of electronic data lies in its ease of access, collection, analysis, modification and transference. Every new plateau requires a reapplication of community standards. Privacy, safety and trust are certainly major issues posed by the Internet and current evolution in data exchange. Having personal control over making choices may be as much an issue as what the choices are.

For example, companies may assume they can share your address and other data you give them; you are required to "opt-out" of information collection, as opposed to being asked to opt-in. Visiting websites may result in data being placed on your computer. Child safety, identity and source reliability are also areas that are of concern and evolving practice and policy. These issues are not exclusive to the Internet, but the Internet allows for the potential misuse of this information on a much larger scale than previously possible. The measures presented here look at acceptance of current practices and belief in the need for attention to security, child safety measures and privacy.

Measurement: Overall Security

Percent of residents who feel secure when using the Internet **51%**

This overall security measure is an index of three security measures—online companies' use of personal information, safe web access for children, and the security of online financial transactions.[2]

Overall, residents are almost evenly split between those who feel the Internet is secure and those who do not. Feeling secure when using the Internet is related to gender, age, and experience with computers.

Men were slightly more likely than women to feel very secure or secure with the Internet (54 percent to 49 percent respectively).

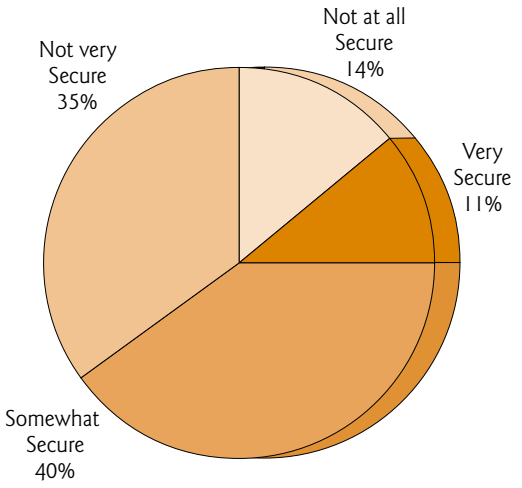
Older residents feel less secure with the web than do younger residents. Sixteen percent of those between 18 and 35 feel very secure with the Internet compared to only nine percent of those over 36. Those who are 65 and older feel the least confident about security and the Internet—more than one quarter (27%) feel that the Internet is not at all secure compared to only about one in 10 (12%) of those under the age of 65.

Those who do not have computer access are much more likely than those with computer access to feel that the Internet is either not very secure or not at all secure (73 percent to 46 percent respectively).

Those who are "very comfortable" or "comfortable" using computers and the Internet are much more likely to feel that the Internet is secure than those who are "not very comfortable" or "not at all comfortable" with computers and the Internet (58 percent to 25 percent respectively).

OVERALL SECURITY WHEN USING THE INTERNET

(BASE: All Respondents)



Source: 2000 Seattle IT Residential Survey

Security of personal information is a concern, especially among non-computer users. Computer users are almost three times more likely to feel that companies on the Internet use personal information appropriately than non-computer users.

Computer and Internet users are much more confident in the security of financial transactions online, but overall confidence is still not very high. Fifty-seven percent of those with Internet access feel that financial transactions are secure, compared to only 18 percent of those without Internet access.

There is still a fair amount of uncertainty about whether or not children can access the web safely. Computer users are more confident than non-computer users. Forty-three percent of computer users felt that there are adequate precautions in place for children to access the web safely compared to only 28 percent of non-users. Those with children at home are also more likely to feel that kids can access the web safely than those without kids at home (47 percent to 39 percent respectively).

Is the Internet safe for kids?

Conversations with computer users at labs around the city

In order to learn more about how computer users feel about Internet safety for kids, we spoke to computer users at community labs around the city. Overall, the users we spoke to were conflicted about how to ensure safe access for children.

Everyone we spoke to agreed that children and youth, when online, should be monitored by adults. Many said that kids will find a way to go online without adult supervision, and should therefore be educated on how and why to protect themselves. Some felt that because of their lack of experience, children may believe that everything they see on the web is true, just because the material has been published. Many of them also stated that parents must discuss with children the physical and psychological dangers inherent in viewing potentially harmful sites and the personal consequences of giving out information to others online.

> Yes, the Internet can be dangerous for kids, but cutting off all access to anyone 18 and younger isn't going to work because they're going to find a way to get in somehow, some way. Parents should talk to their kids first. Tell them that these are the things we don't want you to do on the Internet for your own safety. We're not doing this to be mean or anything. We're doing this because we love you and want you to stay safe. Kids are more likely to respond to that than, "you just can't go here."
>
> *Azorhi, 22, Real Change MacLab User*

> If the parents want to guide the kids how to use it in good manner, yes it is safe. But if you just open the computer and give it to kids to surf the Internet, these kids don't know what to do. And it's dangerous.
>
> *Tsegaye, Horn of Africa Computer Lab Instructor*

> I think that you can train your children to evaluate things for themselves, and to look at a situation and say, "Is that really what I want to do? What are the consequences of that action?"
>
> *Lily North, VISTA Volunteer, Real Change MacLab*

> I don't think kids should just be getting on the Internet. It's very dangerous. It's easy to find sites that are not good for them. They can go to the library or some other place instead.
>
> *Sheldon, 25, Real Change MacLab User*

> Kids should not have absolute access to the Internet. That's actually the responsibility of the parents. There's so much out there. Kids will see things on the Net that they won't understand. And they'll think it's okay because they show it here, so it must be. My whole thing about security is where it's implemented. It's all about the responsibility of the parents and teachers and the kids' elders.
>
> *Kevin, 35, Lab Monitor at Real Change MacLab*

Satisfaction with Content of the World Wide Web

In 2000, the Children's Partnership released a study of the content available through the Internet and how well that content is meeting the needs of underserved Americans. This study, entitled Online Content for Low-Income and Underserved Americans: The Digital Divide's New Frontier[3]*, identifies four significant content-related barriers that affect large numbers of Americans. These barriers are lack of 1) local information, 2) literacy barriers, 3) language barriers, and 4) lack of cultural diversity. Through interviews, web searching and analysis, the Children's Partnership found underserved Americans (defined as those with lower-incomes, limited education, living in rural areas, and members of racial or ethnic minorities) are far less likely to find Internet content that is directly related to their needs. This study found that underserved Internet users want access to local job and housing listings, online learning materials with multimedia components, information at a basic literacy level that is appropriate to adults, more non-English web sites, online translation tools, and health and other vital information geared to particular racial and ethnic groups.*

We were not able to conduct the same research for Seattle residents. Instead, as a representational look at equality, we asked residents who had used computers whether they were satisfied with Internet content. The results were analyzed for trends based on age, ethnicity, education, income, whether the household had children.

Measurement

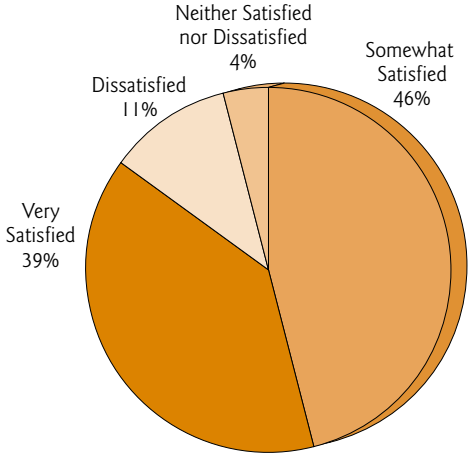
Percent of residents who are satisfied with the content of the web **85%**

A large number of Seattle residents are satisfied with the content of the Internet for their personal needs.

- Only one tenth (11 percent) of respondents state that they are "dissatisfied" with the content of the World Wide Web for their personal needs.
- Of those residents who are satisfied with the content of the web (85 percent), slightly more were somewhat satisfied as opposed to very satisfied.

SATISFACTION WITH THE CONTENT OF THE INTERNET

(BASE: Respondents who have used a computer)



Source: 2000 Seattle IT Residential Survey

There were some differences in demographic groups and overall satisfaction with web content.

- Satisfaction with the web increased with income, with those in the upper and high upper income brackets rating their satisfaction significantly higher than those with lower incomes.
- Among ethnic groups, Asian-Americans were the least satisfied with the content of the Internet and Caucasians were the most satisfied (mean scores of 3.85 and 4.16 respectively).
- Those with children in the household were less satisfied with the content of the web than those without.

Impact of Information Technology on Personal Time

Personal time is when we invest our energy into family, friends and activities that enhance our relationships and quality of life. Have email and the web put you more in touch or out of touch? Can you get tasks done more effectively and spend more time on other personal activities? Maybe you're glued to a computer during your personal time. Do you feel you must stay connected to an office even during vacations or other "time off?"

The success of our relationship with information technology depends on our own needs and expectations, but is also influenced by others. You may be constantly wired to work or home through cell phones, pagers, PDA's[4], email, and the Internet…or wired as little as possible. How about your friends, family and co-workers? What do they expect of you? Through your own use or the use of those with whom you interact, your time has been influenced by information technology.

The measure of whether IT has impacted our residents' personal time provides a snapshot of whether the use of IT has been integrated into our lifestyle in a healthy manner or not.

Measurement

Percent of residents who feel that IT has decreased their personal time	18%
Percent of residents who feel that IT has increased their personal time	22%

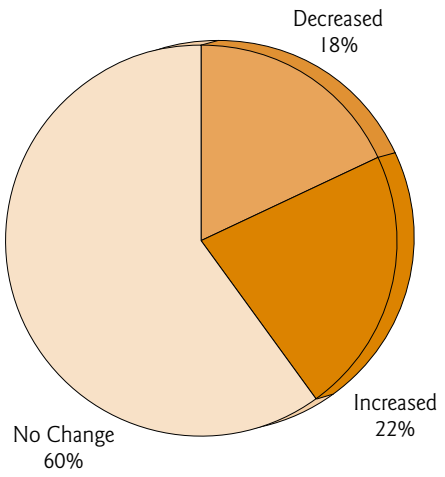
The majority of residents (60 percent) feel that information technology has had no measurable impact on their personal time. The remaining 40 percent were split as to whether it increased or decreased personal time.

- Men are more likely than women to feel that IT has decreased their personal time, where as women were more likely to say it has made no difference.
- In general, young respondents (those between 18 and 25) feel that IT has increased their personal time. Those between 26 and 64 are the most likely to feel that it has decreased.

Other local studies have looked at whether or not people feel that information technology has made them more time-efficient. Results from a survey of Washington and Oregon residents done by the *Seattle Times* and Northwest Cable News found that 49 percent of respondents felt that they got more done in less time as a result of the Internet. However, 45 percent of respondents also reported that they work on office projects from their home computer at least once a week, with one third of those respondents saying they work on office projects from their home computer every day.[5, 6]

IMPACT OF INFORMATION TECHNOLOGY ON PERSONAL TIME

(BASE: All Respondents)



Source: 2000 Seattle IT Residential Survey

Notes

1 These results are consistent with other studies. A *Seattle Times* poll of Washington and Oregon residents conducted by Elway Research in September of 2000 found that 85 percent of respondents felt that the Internet has had a positive effect on their life. A quarter of respondents felt that it was a significant positive impact, while 60 percent said generally positive. Only four percent felt that the Internet had had a negative impact on their life. Source: Sharon Pian Chan "Internet Poll of Washington and Oregon Residents," *The Seattle Times*, 24 September 2000.

2 Overall security was calculated by taking an average of each individual's responses to the three security questions. Two of the questions were asked as yes/no questions, while the third was asked on a scale of 1 to 5. For the purposes of combining these questions into one security measure, the yes/no questions were put onto the 1 to 5 scale. Yes replies were given a 5, no replies a 1, and don't know replies a 3. Using this scale the three questions were added together. "Very secure" refers to those who answered yes or very secure to all three questions. "Not at all secure" refers those who answered no or not at all secure to all three of the questions. Those in between were split between "somewhat secure" and "secure." More detailed information about replies to the three individual security questions is available at www.cityofseattle.net/tech/indicators/ data_collection.htm.

3 This report can be found at www.childrenspartnership.org/pub/low_income/index.html

4 Personal digital assistant, such as a Palm Pilot, Windows CE device or Handspring Visor.

5 Sharon Pian Chan "Internet Poll of Washington and Oregon Residents," *The Seattle Times*, 24 September 2000.

6 Our study did not measure the impact of the Internet allowing people to work at home, but other studies have begun to look at this. There has been other research done on Internet usage and its impact on personal time across the country. In analyzing the results of a survey of 4000 Internet users nationwide, researchers from the Stanford Institute for the Quantitative Study of Society were surprised by the degree to which people told them that they were working at home on the Internet for their employers, in addition to time spent at the office. Only 4 percent of Internet users working full or part-time said that they had cut back on their at work hours since gaining Internet access, while 16 percent said they were working more hours at home since gaining Internet access without cutting back at the office. An additional nine percent said that the Internet has increased both time at the office and time working at home Source: Norman H Nie and Lutz Erbring. *Internet and Society: A Preliminary Report*. (Stanford Institute for the Quantitative Study of Society) February 17, 2000. www.stanford.edu/group/siqss/Press_Release/Preliminary_Report.pdf.